DOCUMENT RESUME

ED 170 273 SP 014 212

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TITLE A Mini-Instructional System for Increasing Teacher Classroom Management Competence.
PUB DATE Feb 79
NOTE 17p.; Paper presented at the Annual Meeting of the Association of Teacher Educators (Orlando, Florida, February 1979)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Academic Achievement; *Class Management; *Classroom Techniques; *Effective Teaching; Hypothesis Testing; *Instructional Systems; Statistical Studies; Student Behavior; Teacher Attitudes; *Teacher Behavior; *Teacher Education; Teaching Skills

ABSTRACT

The findings from two studies (Pre-Post and Matched-Pairs) suggest that the mini-instructional system that was designed to provide teachers with training in the analytic-pluralistic approach to classroom management did have a very positive impact on those teachers who received this training. The mini-instructional system is one in which classroom management is viewed as a four-stage process in which the teacher: (1) specifies the desirable classroom conditions; (2) identifies discrepancies between the existing behaviors and those deemed desirable; (3) utilizes those specific managerial behaviors that will most effectively narrow the gap; and (4) evaluates his or her managerial effectiveness. Specifically, findings suggest that the training is effective in fostering those teacher attitudes and teacher managerial behaviors thought to be related to desirable student outcomes. (DS)

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A MINI-INSTRUCTIONAL SYSTEM FOR INCREASING TEACHER CLASSROOM MANAGEMENT COMPETENCE

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Introduction

The purpose of this paper is to describe two studies which were undertaken in an effort to evaluate the impact of a mini-instructional system which is intended to increase the classroom management competence of inservice classroom teachers. The first of these studies sought to determine the extent to which the system influenced the attitudes—managerial preferences—of teachers with whom it was used; this study is referred to as the Pre-Post Study throughout this paper. The second study attempted to compare the attitudes, managerial behaviors, and student on-task behaviors of teachers who had been trained using the system with those of teachers who had not received such training; this study is referred to as the Matched-Pairs Study.

A growing body of teacher effectiveness research suggests that student on-task behavior—student engagement in the activity in which the teacher expects the student to be engaged (Evertson and Anderson, 1977, page 8)—is related to certain student outcomes. For example, a number of studies have found that student on-task behavior is positively related to student academic achievement (Berliner and Rosenshine, 1976; Bloom, 1976; Coker, 1977; Medley, 1977; Rosenshine, 1977; and Rosenshine and Berliner, 1978). In addition, several studies have found that a disruptive classroom environment—a situation in which students are exhibiting off-task behavior—is negatively related to student academic achievement in the basic skills (Coker, 1977;

A paper presented at the annual meeting of the Association of Teacher Educators, Orlando, Florida, February, 1979.

Good and Grouws, 1977; Medley, 1977; and Rosenshine, 1976). These findings suggest that student on-task behavior is an important mediating variable between teacher behaviors and student academic outcomes. The data also imply that teachers should be encouraged to exhibit behaviors which promote student on-task behavior.

Initial efforts to identify those teacher behaviors which are related to the establishment and maintenance of student on-task behavior seem to support the position that those teacher behaviors which are most effective in establishing and maintaining student on-task behavior are managerial rather than instructional behaviors. That is, there is a growing body of recent research which suggests that teacher managerial behaviors—those behaviors the teacher uses in attempting "to create and maintain conditions in which instruction can take place effectively and efficiently" (Weber, 1977, page 287)—may be more effective in promoting student on-task behavior than teacher instructional behaviors—those behaviors which are "intended to facilitate the student's achievement of specific educational objectives directly" (Weber, 1977, page 287).

These initial efforts indicate that certain teacher managerial behaviors are related to student on-task behavior—and to student academic achievement (Anderson and Evertson, 1978; Berliner and Rosenshine, 1976; Bloom, 1976; Coker, 1977; Goldstein and Weber, 1979; Good and Grouws, 1977; Medley, 1977; Rosenshine, 1976; Rosenshine, 1977; and Rosenshine and Furst, 1973, for example). In addition, several studies have suggested that teacher instructional behaviors are not effective in promoting student on-task behavior or student achievement in the absence of effective teacher managerial behaviors (Berliner, 1978; and Anderson and Evertson, 1978). More specifically, there seems to be both empirical evidence and conceptual support for the position that those teacher managerial behaviors which might be categorized as behavior modification, group process, or socioemotional climate managerial strategies are positively related to student on-task behavior and student academic achievement while those teacher managerial behaviors which might be categorized as authoritarian, common sense, instructional, or permissive managerial strategies are negatively related to student on-task behavior—and to academic achievement (Dunkin and Biddle, 1974; Goldstein, 1978; Goldstein and Weber, 1979a and 1979b; and Weber, 1977 and in press).

This position has provided an empirical and conceptual basis for the development and implementation of a mini-instructional system—a graduate course—which provided teachers with training designed to increase their managerial effectiveness through the use of a managerial approach which has been called the analytic-pluralistic approach (Weber, in press). The studies reported in this paper represent attempts to assess the system's impact on teachers who have received training in the analytic-pluralistic approach.

The Mini-Instructional System

The analytic-pluralistic approach is one in which classroom management is viewed as a four-stage process in which the teacher: (1) specifies the desirable classroom conditions—those particular conditions the teacher feels will foster student on-task behavior and facilitate effective and efficient instruction with his or her students in his or her classroom; (2) analyzes existing student behaviors and classroom conditions in order to identify discrepancies between the existing behaviors and conditions and those deemed desirable; (3) selects and utilizes those specific managerial behaviors he or she believes have the greatest potential for narrowing the discrepancies between "real" and "ideal" conditions given a particular situation and his or her analysis of that situation; and (4) evaluates his or her managerial effectiveness by monitoring and assessing the extent to which his or her efforts have brought about the behaviors and conditions deemed desirable. The mini-instructional system examined by the studies reported here consisted of a formal, three credit-hour, fifteen week, graduate course designed for inservice teachers. The system is built on a series of specified competencies and instructional objectives which call for the teacher to demonstrate mastery in applying the four-stage process in his or her classroom.

The analytic-pluralistic approach and the instructional system are based on the assumption that the effective classroom manager is one who: (1) understands the full range of managerial behaviors and consequences implied by each of a variety of approaches to classroom management; and (2) selects and applies those particular managerial behaviors most appropriate to a given situation. The system advocates the use of behavior modification,

group process, and socioemotional climate managerial behaviors and warns against the inappropriate use of authoritarian, common sense, instructional, and permissive managerial behaviors. That is, the system was designed to encourage teachers to use managerial behaviors drawn primarily from the behavior modification, group process, and socioemotional climate approaches because in most situations such behaviors are more likely to be effective than are authoritarian, common sense, instructional, and permissive managerial behaviors. As a result of one of the studies reported here, the system has been modified so that it presently discusses—and warns against use of—an eighth approach, the intimidation approach. A brief description of the eight approaches may be helpful here.

The behavior modification approach is seen as having its conceptual basis in the theories of behavior psychology. The major assumption of the behavior modification approach is that behavior is learned and that several basic processes—positive reinforcement, punishment, extinction, and negative reinforcement—account for all learning. The major teacher managerial role in the behavior modification approach is to help students learn to behave appropriately by rewarding appropriate student behavior and withholding the rewarding of inappropriate student behavior.

The group process or sociopsychological approach has its theoretical underpinnings in social psychology and group dynamics. Its major assumption is that schooling takes place within a group context. The major managerial role of the teacher in the group process approach is to establish and maintain a cohesive, productive classroom group.

The socioemotional climate approach has its theoretical basis in counseling and clinical psychology. In this approach, it is assumed that effective classroom management is largely a function of positive teacher-student and student-student relationships. The teacher is seen as the major determiner of interpersonal relationships and classroom climate. The role of the teacher in this approach is to build positive interpersonal relationships and a positive socioemotional climate.

The authoritarian approach places the teacher in the role of establishing and maintaining order in the classroom through the use of discipline. The major goal of the teacher is to control student behavior. The teacher assumes responsibility for controlling the conduct of the student.

The common sense approach does not have a single theoretical or psychological base. It lacks consistency and a set of principles which would permit the teacher to generalize. It tends to be reactive rather than proactive and is a combination of common sense and folklore. The common sense approach is often represented in rather simplistic lists of "do's" and "don'ts" for teachers. This approach is also called the cookbook approach because these lists resemble step-by-step recipes.

The instructional approach to classroom management is based on the premise that carefully planned and executed instruction will prevent most student behavior problems and solve the others. This approach advocates the use of instructional teacher behavior to prevent or stop inappropriate student behavior.

The intimidation approach seems to be predicated on the assumption that student conduct is best controlled through the use of intimidating teacher behaviors—sarcasm, ridicule, coersion, threats, punishment, force, and disapproval, for example. The goal of the teacher is to compel the student to behave appropriately out of a fear to do otherwise.

The permissive approach places the teacher in the role of promoting the freedom of students and fostering their natural development. In essence, the teacher is expected to interfere as little as possible. The role of the teacher is to encourage students to express themselves freely so that they might reach their fullest potential.

Inasmuch as the system was designed to encourage students to draw most heavily from the behavior modification, group process, and socioemotional climate approaches and to draw from the others sparingly, if at all, one might assume that teachers who received training in the analytic-pluralistic approach would: (1) exhibit significantly more positive attitudes toward the behavior modification, group process, and socioemotional climate approaches and significantly more negative attitudes toward the authoritarian, common sense, instructional, and permissive approaches following training; (2) exhibit significantly more positive attitudes toward the behavior modification, group process, and socioemotional climate approaches and significantly more negative attitudes toward the

authoritarian, common sense, instructional, and permissive approaches when compared to teachers who did not receive such training; and (3) exhibit significantly more behavior modification, group process, socioemotional climate managerial behaviors and significantly fewer authoritarian, common sense, instructional, and permissive managerial behaviors when compared to teachers who did not receive such training. Additionally, one might assume that students of teachers who received training would exhibit a significantly higher percentage of on-task behavior than would the students of teachers who did not receive such training.

The first of these assumptions led to the generation of seven directional hypotheses which were tested in the Pre-Post Study. The three assumptions concerning teacher attitudes, teacher behaviors, and student on-task behaviors led to the generation of fifteen directional hypotheses which were tested in the Matched-Pairs Study.

Procedures

The procedures of the Pre-Post Study were designed to allow an investigation of the extent to which the attitudes of those who received training in the use of the analytic-pluralistic classroom management approach changed as a result of that training. Given this purpose and the hypotheses which were posited, a quasi-experimental, one group pretest-posttest design was employed. The independent variable was the training experience; the dependent variables were teacher attitudes with respect to each of the seven classroom management approaches: behavior modification, group process, socioemotional climate, authoritarian, common sense, instructional, and permissive.

The sample for the Pre-Post Study consisted of fourteen elementary school teachers from five public school districts in a large metropolitan area. All were employed as classroom teachers and were enrolled in a three-credit hour, graduate level course specifically designed to provide training in the analytic-pluralistic approach to classroom management.

The procedures of the Matched-Pairs Study were designed to enable an examination of the extent to which: teacher attitudes, teacher managerial behaviors, and student on-task behavior differed for teachers who had been

trained in the use of the analytic-pluralistic approach differed from those who had not been so trained. Given these purposes and the hypotheses which were to be tested, a quasi-experimental design was employed. Specifically, a post-test only, control group with matching design was selected. The independent variable was dichotomous—training in the analytic-pluralistic approach or no such training. The dependent variables were teacher attitudes with respect to each of the seven classroom management approaches, teacher managerial behaviors classified according to the seven approaches, and student on-task behavior. A matching process was utilized in an attempt to control for a number of extraneous variables.

The sample for the Matched-Pairs Study consisted of fourteen matched pairs of elementary school teachers from nine public schools in a large metropolitan area. One teacher of each pair had successfully completed training in the analytic-pluralistic approach to classroom management from six to eighteen months prior to this study; the other teacher in each pair had never received such training. Each pair of teachers was matched with regard to sex, grade level taught, school district, socio-economic status of students, and type of classroom organization. To the extent possible, each pair was also matched with regard to class size, level of formal education, years of experience, and chronological age.

Three instruments were used to collect the data needed to test the twenty-two hypotheses posited for the two studies: (1) the Teacher Opinion Questionnaire (TOQ); (2) the Classroom Management Training Inventory (CMTI); and (3) the Management Approach Behavior Observation System (MABOS). The TOQ is a forty-two item questionnaire designed to gather data regarding an individual's attitudes with respect to each of the seven managerial approaches. The CMTI is a two-page questionnaire which was designed to gather the demographic information used in the matching process and to collect data regarding each subject's participation in classroom management training. The MABOS was used to collect observational data—in the form of a narrative record—of teacher managerial episodes and behaviors and student on-task behavior (Coman, Goldstein, Peacock, and Weber, 1978). The MABOS enables trained observers to categorize each teacher managerial behavior into one of the seven classroom management approaches and to determine the extent to which students were on-task.

The fourteen teachers involved in the Pre-Post Study responded to the TOQ during the first and fifteenth weeks of the fifteen week course. This instrument was administered by the course instructor during class time. The posttest administration followed the assignment of final course grades.

The twenty-eight teachers in the Matched-Pairs Study were observed for a minimum of three hours during each of two morning instructional periods by two different observers for a total of not less than six clock hours. Each of the observers was a trained individual who was competent to collect and categorize the observational data with a high degree of reliability. The observations were made during the seventh and eighth months of the school year; by that time, a teacher's managerial behavior is thought to be well-established. Since reading and mathematics instruction was scheduled for the morning hours in the classrooms sampled, it was felt that the instructional content provided an excellent framework for observation. When all fifty-six observations were completed, the subjects responded to the CMTI. Once the observational data were collected, each teacher managerial behavior was categorized according to the managerial approach it represented. The total in each of the seven categories for a particular teacher was expressed as a percentage of the total number of managerial behaviors recorded for that teacher.

All attitudinal and behavioral data were analyzed using the t-test of significance. In those instances in which an F test of sample variances indicated unequal variances, an approximation to t was used as recommended by Nie and others (1975, pages 267-274). This procedure allowed the testing of each of the twenty-two directional hypotheses. The ninety-five percent level of confidence was set as the criterion for the acceptance of an hypothesis.

Findings

The results of the Pre-Post and Matched-Pairs Studies are summarized in Tables 1 and 2. As indicated in Table 1, the results for the Pre-Post Study indicate that six of the seven directional hypotheses were accepted at a statistically significant level. It was found that teachers in the sample became significantly more positive in their attitudes toward the behavior modification ($t = 3.12$, $p = .008$), group process ($t = 3.25$, $p = .006$), and

Table 1

Summary of Results Obtained from Analysis of Pre-Post Teacher Attitude Data Using t-Test of Significance

Teacher Attitude	Hypothesized Difference	Pre		Post		t	df	p	Conclusion
		Mean	SD	Mean	SD				
Behavior Modification	$T_1 > T_2$	6.72	0.39	7.99	0.34	3.12	13	.008	Accepted
Group Process	$T_1 > T_2$	6.98	1.35	8.22	1.00	3.25	13	.006	Accepted
Socioemotional Climate	$T_1 > T_2$	8.50	1.17	9.61	0.64	4.63	13	.001	Accepted
Authoritarian	$T_1 < T_2$	4.52	1.22	3.74	0.75	2.33	13	.008	Accepted
Common Sense	$T_1 < T_2$	3.24	0.68	2.94	0.73	1.21	13	.248	Not Accepted
Instructional	$T_1 < T_2$	7.06	1.58	5.51	1.54	4.03	13	.001	Accepted
Permissive	$T_1 < T_2$	1.96	0.18	1.45	0.10	2.75	13	.016	Accepted

Table 2

Summary of Results Obtained from Analysis of Teacher Attitude, Teacher Behavior, and Student On-Task Behavior Data Using t-Test of Significance

Variable	Hypothesized Difference	Trained		Untrained		t	df	p	Conclusion
		Mean	SD	Mean	SD				
Teacher Attitude									
Behavior Modification	T>U	7.11	0.91	5.36	1.11	4.56	26	.001	Accepted
Group Process	T>U	8.96	0.74	7.53	2.17	2.34 *	16	.017	Accepted
Socioemotional Climate	T>U	9.19	1.19	7.91	1.62	2.39	26	.013	Accepted
Authoritarian	T<U	4.35	1.47	5.35	1.13	2.01	26	.028	Accepted
Common Sense	T<U	3.16	0.50	3.73	1.35	1.48 *	16	.079	Not Accepted
Instructional	T<U	5.18	1.03	6.80	1.62	3.15 *	22	.003	Accepted
Permissive	T<U	1.49	0.50	2.42	2.33	1.46 *	14	.083	Not Accepted
Teacher Behavior									
Behavior Modification	T>U	20.75	12.04	13.60	7.84	1.86	26	.037	Accepted
Group Process	T>U	22.32	8.38	10.78	10.22	3.26	26	.002	Accepted
Socioemotional Climate	T>U	23.28	16.19	9.97	6.29	2.87 *	17	.006	Accepted
Authoritarian	T<U	27.62	13.77	51.34	17.94	3.92	26	.001	Accepted
Common Sense	T<U	0.33	0.94	2.53	2.80	2.78 *	16	.007	Accepted
Instructional	T<U	4.93	3.72	8.06	6.05	1.65 *	22	.057	Not Accepted
Permissive	T<U	0.77	1.47	3.72	7.30	1.48 *	14	.080	Not Accepted
Student On-Task Behavior	T>U	93.93	4.22	90.37	7.38	1.57 *	21	.066	Not Accepted

*F test indicated unequal variance; approximation to t was computed.

socioemotional climate approaches (t = 4.63, p = .001) and became significantly more negative (or less positive) in their attitudes toward the authoritarian (t = 2.33, p = .008), instructional (t = 4.03, p = .001), and permissive approaches (t = 2.75, p = .016), as a result of the training. Teacher attitude change with regard to the common sense approach did not reach statistical significance (t = 1.21, p = .248) although the mean score difference was in the predicted direction. These findings seem to suggest that the training did have the desired effect on teacher attitudes concerning the usefulness of the seven managerial approaches.

Additionally, it is interesting to note that the posttest mean scores indicate that the teachers were far more positive toward the socioemotional climate (9.61), group process (8.22), and behavior modification approaches (7.99) than toward the instructional (5.51), authoritarian (3.74), common sense (2.94), and permissive approaches (1.45). Although the study was not designed to test the significance of these differences, it seems reasonable to suggest that these results lend support to arguments that the training had the desired impact.

Analysis of the teacher attitude data for the Matched-Pairs Study yielded similar results. As indicated in Table 2, five of the seven directional hypotheses relating to teacher attitudes were accepted. The results suggested that teachers who had received the training were significantly more positive in their attitudes toward the behavior modification (t = 4.56, p = .001), group process (t = 2.34, p = .017), and socioemotional climate approaches (t = 2.39, p = .013) and were significantly more negative in their attitudes toward the authoritarian (t = 2.01, p = .028) and instructional approaches (t = 3.15, p = .003) than were teachers who had not received the training. Although mean score differences with regard to the common sense and permissive approaches were in the expected direction, they did not reach statistical significance (t = 1.48, p = .079; and t = 1.46, p = .083, respectively).

Again, it is of interest to note that an examination of the mean scores for the trained teachers indicates that they showed a clear preference for the socioemotional climate (9.19), group process (8.96), and behavior modification approaches (7.11). On the other hand, the preferences of the untrained teachers were less clear as indicated by a smaller "spread" of scores and greater variance. Mean scores for the untrained teachers ranged from a high of only 7.91 to a low of 5.35 for five of the seven variables. These teacher attitude findings seem to lend additional support to the argument that the training was effective.

The results obtained with regard to the teacher behavior data are summarized in Table 2. They are equally encouraging. The results permitted the acceptance of five of the seven directional hypotheses concerned with teacher managerial behavior. It was found that the trained teachers exhibited significantly more behavior modification (t = 1.86, p = .037), group process (t = 3.26, p = .002), and socioemotional climate managerial behaviors (t = 2.87, p = .006) in their teaching than did the untrained teachers. Additionally, the trained teachers exhibited significantly fewer authoritarian (t = 3.92, p = .001) and common sense managerial behaviors (t = 2.78, p = .007) than did the untrained teachers. Although mean score differences obtained with regard to instructional and permissive managerial behaviors were in the predicted direction, neither quite reached statistical significance (t = 1.65, p = .057; and t = 1.48, p = .080, respectively).

An examination of the teacher behavior mean scores suggests that both the trained and the untrained teachers used authoritarian managerial behaviors more frequently than any of the other six types. However, it must be emphasized that: (1) the trained teachers used significantly fewer authoritarian behaviors than did the untrained teachers (27.62 and 51.34, respectively); and (2) the trained teachers used far more behavior modification, group process, and socioemotional climate managerial behaviors (a total of 66.35) than did the untrained teachers (a total of 34.35). That is, the results suggest that the trained teachers used the three types of managerial behaviors deemed most desirable nearly twice as often as did the untrained teachers and that the trained teachers used authoritarian managerial behaviors only about half as often as the untrained teachers and used the three types of managerial behaviors deemed most effective nearly twice as often as the untrained teachers. Thus, the findings regarding teacher managerial behaviors appear to be consistent with those obtained for teacher attitudes.

The results obtained from an analysis of the student on-task behavior are also summarized in Table 2. Although the difference between the mean score for the students of the trained teachers (93.93) and the mean score for the students of the untrained teachers (90.37) was in the predicted direction, it did not quite reach statistical significance at the ninety-five percent level of significance. In spite of that, these findings are very encouraging when one takes into account the difficulties associated with the study of student outcome measures.

Summary

The findings from the Pre-Post and Matched-Pairs Studies suggest that the mini-instructional system which was designed to provide teachers with training in the analytic-pluralistic approach to classroom management did have a very positive impact on those teachers who received this training. Of the twenty-two directional hypotheses the studies tested, sixteen were accepted. Of the remaining six, five also would have been accepted if the ninety percent level of confidence had been used as the criterion for acceptance. Indeed, in all twenty-two instances, mean score comparisons yielded differences in the predicted direction.

Although an analysis of the student on-task behavior data did not yield results which were statistically significant, it is the position here that the findings are very encouraging nonetheless. Others might argue with that position. However, the findings regarding teacher attitude and teacher behavior leave little room for arguemtn. These findings suggest that the training is effective in fostering those teacher attitudes and teacher managerial behaviors thought to be related to desirable student outcomes. Those who would design preservice and inservice teacher education programs which are intended to increase the managerial competence of teachers might profit from an examination of the analytic-pluralistic approach, the mini-instructional system, and teh studies reported here.

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